

OCT 25 2006

EXPRESS MAILING LABEL NO. EL 733 591 273 US

PATENT APPLICATION
Docket No 15689.51

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Sadayuki ABETA et al.

Serial No.: 09/446,560

Filing Date: December 22, 1999

Confirmation No.: n/a

For: CDMA RECEIVER AND CDMA
TRANSMITTER/RECEIVERArt 1 Unit
2:54REVOCATION AND SUBSTITUTE POWER OF ATTORNEYHonorable Commissioner of Patents
and Trademarks
Washington, DC 20231

Sir:

The undersigned, Yoshitaro Shimanuki, declares: that he is the Intellectual Property Executive Manager of NTT DoCoMo, Inc., and that he is authorized to execute this Revocation and Substitute Power of Attorney on behalf of NTT DoCoMo, Inc.; and that NTT DoCoMo, Inc. is the assignee of the entire interest of the above-identified application, as shown by the assignment recorded in the United States Patent Office at Reel 010559, Frame 0209, a copy of said assignment is attached at Exhibit A hereto; and name change documents filed October 23, 2002, a copy of said document is attached at Exhibit B, and that the documents have been reviewed by him, and to the best of his knowledge and belief title is in the assignee NTT DoCoMo, Inc.. The assignee, NTT DoCoMo, Inc., hereby revokes all previous powers of attorney in the above-identified application, and now hereby appoints all attorneys under customer number:



022913

PATENT TRADEMARK OFFICE

of WORKMAN, NYDEGGER & SEELEY, 1000 Eagle Gate Tower, 60 East South Temple, Salt Lake City, Utah 84111, as attorneys with full power of substitution and revocation, to prosecute said application, to make alterations and amendments therein, to receive the Letters Patent, and to transact all business in the Patent and Trademark Office connected therewith. The declarant further declares that all statements made herein of his own knowledge are true; and further that these statements were made with the knowledge that willful, false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful, false statements may jeopardize the validity of the application or any patent issuing thereon. All correspondence and telephonic communications should be directed to:

ADRIAN J. LEE
WORKMAN, NYDEGGER & SEELEY
1000 Eagle Gate Tower
60 East South Temple
Salt Lake City, Utah 84111

All previous powers of attorney are hereby revoked.

Signed this 30 day of September, 2002.

Yoshitaro Shimanuki

Yoshitaro Shimanuki
Intellectual Property Executive Manager
NTT DoCoMo, Inc.
11-1, Nagatacho 2-Chome
Chiyoda-Ku
Tokyo 100-6150, Japan

WA1568951URE0000000242V001.doc



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APRIL 25, 2000

PTAS

BROWN RAYSMAN MILLSTEIN FELDER ET AL.
LARRY LIBERCHUK
120 WEST 45TH STREET
NEW YORK, NY 10036



10127270(h

3815/91

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 12/22/1999

REEL/FRAME: 010559/0206
NUMBER OF PAGES: 5

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

ABETA, SADAYUKI

DOC DATE: 12/15/1999

ASSIGNOR:

SAWAHASHI, MAMORU

DOC DATE: 12/15/1999

ASSIGNOR:

ADACHI, FUMIYUKI

DOC DATE: 12/15/1999

ASSIGNEE:

NTT MOBILE COMMUNICATIONS NETWORK,
INC.10-1, TORANOMON 2-CHOME, MINATO-KU
TOKYO 105-8436, JAPAN

SERIAL NUMBER: 09446560

FILING DATE: 12/22/1999

PATENT NUMBER:

ISSUE DATE:

RECORDS UPDATED

05/04/00 HLR

010559/0206 PAGE 2

LENELL MACKALL, PARALEGAL
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

FORM PTO-1619A
Expires 06/30/99
OMB 0651-0027

02-23-2000

09/446560
cd PCT/PTO 32 DEC 1999
U.S. Department of Commerce
Patent and Trademark Office
PATENT



101272700

RECORDATION FORM COVER SHEET PATENTS ONLY

TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).

Submission Type

☒ New

☐ Resubmission (Non-Recordation)

Document ID#

☐ Correction of PTO Error

Reel #

Frame #

☐ Corrective Document

Reel #

Frame #

Conveyance Type

☒ Assignment

☐ Security Agreement

☐ License

☐ Change of Name

☐ Merger

☐ Other

U.S. Government

(For Use ONLY by U.S. Government Agencies)

☐ Departmental File

☐ Secret File

Conveying Party(ies)

☒ Mark if additional names of conveying parties attached

Name (line 1) Sadayuki Abeta

Execution Date
Month Day Year
12/15/99

Name (line 2)

Second Party

Name (line 1) Mamoru Sawahashi

Execution Date
Month Day Year
12/15/99

Name (line 2)

Receiving Party

☐ Mark if additional names of receiving parties attached

Name (line 1) NTT Mobile Communications Network, Inc.

☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Name (line 2)

Address (line 1) 10-1, Toranomon 2-chome, Minato-ku

Address (line 2)

Address (line 3) Tokyo 105-8436

Japan

Zip Code

Domestic Representative Name and Address

Enter for the first Receiving Party only.

Name Larry Liberchuk, Reg. No. 40,352

Address (line 1) Brown Raysman Millstein Felder & Steiner LLP

Address (line 2) 120 West 45th Street

Address (line 3) New York, NY 10036

Address (line 4)

FOR OFFICE USE ONLY

Public burden reporting for this collection of information is estimated to average approximately 30 minutes per Cover Sheet to be recorded, including time for reviewing the document and gathering the data needed to complete the Cover Sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Chief Information Officer, Washington, D.C. 20231 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Paperwork Reduction Project (0651-0027), Washington, D.C. 20503. See OMB Information Collection Budget Package 0651-0027, Patent and Trademark Assignment Practice. DO NOT SEND REQUESTS TO RECORD ASSIGNMENT DOCUMENTS TO THIS ADDRESS.

Mail documents to be recorded with required cover sheet(s) information to:

Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231

FORM PTO-1619B

Expires 06/30/99
OMB 0851-0027

Page 2

U.S. Department of Commerce
Patent and Trademark Office
PATENT**Correspondent Name and Address**

Area Code and Telephone Number

(212) 944-1515

Name Larry Liberchuk

Address (line 1) Brown Raysman Millstein Felder & Steiner LLP

Address (line 2) 120 West 45th Street

Address (line 3) New York, NY 10036

Address (line 4)

Pages

Enter the total number of pages of the attached conveyance document including any attachments.

2

Application Number(s) or Patent Number(s)☐ Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)

Patent Number(s)

If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor.

Month Day Year

Patent Cooperation Treaty (PCT)Enter PCT application number
only if a U.S. Application Number
has not been assigned.

PCT JP99/02154

PCT

PCT

PCT

PCT

PCT

Number of Properties

Enter the total number of properties involved.

1

Fee Amount

Fee Amount for Properties Listed (37 CFR 3.41): \$

40

Method of Payment:
Deposit AccountEnclosed ☐Deposit Account ☐

(Enter for payment by deposit account or if additional fees can be charged to the account.)

Deposit Account Number:

02-4270

Authorization to charge additional fees:

Yes

☒

No

☐**Statement and Signature**

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.

Larry Liberchuk

Name of Person Signing

Signature

Date

FORM PTO-1619C
Expires 08/30/99
OMB 0551-0027RECORDATION FORM COVER SHEET
CONTINUATION
PATENTS ONLYU.S. Department of Commerce
Patent and Trademark Office
PATENT

Conveying Party(ies)

☐ Mark if additional names of conveying parties attached

Enter additional Conveying Parties

Execution Date
Month Day Year

Name (line 1) Fumiyuki Adachi

RECEIVED

12/15/99

Name (line 2)

CENTRAL FAX CENTER

OCT 25 2006

Execution Date
Month Day Year

Name (line 1)

Name (line 2)

Name (line 1)

Execution Date
Month Day Year

Name (line 2)

Receiving Party(ies)

☐ Mark if additional names of receiving parties attached

Enter additional Receiving Party(ies)

Name (line 1)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)

City

State/Country

Zip Code

Name (line 1)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)

City

State/Country

Zip Code

☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)☐ If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Application Number(s) or Patent Number(s)

☐ Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)

Patent Number(s)

RECEIVED
CENTRAL FAX CENTER

OCT 25 2006

ASSIGNMENT

WHEREAS, we, Sadayuki ABETA, a citizen of Japan, residing at 4-18-4-102, Nobi, Yokosuka-shi, Kanagawa 239-0841, JAPAN; Mamoru SAWAHASHI a citizen of Japan, residing at 1-59-17, Tomiokanishi, Kanazawa-ku, Yokohama-shi, Kanagawa 236-0052, JAPAN; and Fumiyuki ADACHI, a citizen of Japan, residing at 6-12-4, Tomiokanishi, Kanazawa-ku, Yokohama-shi, Kanagawa 236-0052, JAPAN have invented one or more inventions disclosed in an application for Letters Patent of the United States titled

CDMA RECEIVER AND CDMA TRANSCEIVER

(hereinafter referred to as "said application"), said application having been filed herewith.

WHEREAS, NTT MOBILE COMMUNICATIONS NETWORK, INC., (hereinafter referred to as "the Assignee"), a Japanese corporation, having a place of business at 10-1, Toranomon 2-chome, Minato-ku, Tokyo 105-8436 JAPAN; is desirous of obtaining all right, title and interest in, to and under said invention(s) and said application; and

NOW, THEREFORE, for good and valuable considerations, the receipt and sufficiency of which we hereby acknowledge, we have sold, assigned, transferred and set over, and by these presents hereby sell, assign, transfer and set over to the Assignee all right, title and interest in, to and under said invention(s) and said application, including the right to apply for any Letters Patent of the United States of America and in any and all foreign countries on said invention(s), and any and all other applications for Letters Patent on said invention(s), in whatsoever countries, including all divisional, renewal, substitute, continuation, continuation-in-part and convention applications based in whole or in part upon said invention(s) or upon said application, and any and all Letters Patent which may issue thereon. We hereby covenant and agree that we will, upon request of the Assignee, communicate to the Assignee any facts known to us relating to said invention(s) and the history thereof, testify in any legal proceeding, execute all lawful papers including without limitation all divisional, continuing and reissue applications and all rightful oath and declarations, and generally do all further acts which may be deemed necessary by the Assignee to obtain and enforce proper patent protection for said invention(s) in all countries.

IN TESTIMONY WHEREOF, we have executed this document on the date indicated below.

Date: December 15, 1999

Sadayuki Abeta
(Signature) Sadayuki ABETA

Date: December 15, 1999

Mamoru Sawahashi
(Signature) Mamoru SAWAHASHI

Date: December 15, 1999

Fumiyuki Adachi
(Signature) Fumiyuki ADACHI

Pat No.: 15689.0

FORM PTO-1586 (Modified)

(Rev. 03-01)

OMB No. 0651-0027 (exp. 5/31/2002)

POB/REV03

RECORDATION FORM COVER SHEET

U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office

PATENTS ONLY

Tab settings

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):
NTT MOBILE COMMUNICATIONS NETWORK INC.

2. Name and address of receiving party(ies):

Name: NTT DOCOMO, INC. RECEIVED
Internal Address: CENTRAL FAX CENTER

OCT 25 2006

Additional names(s) of conveying party(ies)

☐ Yes ☒ No

3. Nature of conveyance:

- ☐ Assignment ☐ Merger
☐ Security Agreement ☒ Change of Name
☐ Other _____

Street Address: 11-1, Nagatacho 2-chome, Chiyoda-ku
Tokyo, Japan

City: _____ State: _____ ZIP: _____

Execution Date: April 1, 2000Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent numbers(s):

If this document is being filed together with a new application, the execution date of the application is: _____

A. Patent Application No.(s)

see attached list for

B. Patent No.(s)

applications and
patents affectedAdditional numbers attached? ☒ Yes ☐ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Adrian J. Lee

Internal Address: _____

Street Address: Workman, Nydegger & Seeley1000 Eagle Gate Tower, 60 East South TempleCity: Salt Lake City State: UT ZIP: 84111

6. Total number of applications and patents involved:

52

7. Total fee (37 CFR 3.41):.....\$ 2,080.00☐ Enclosed - Any excess or insufficiency should be credited or debited to deposit account☒ Authorized to be charged to deposit account

8. Deposit account number:

23-3178

(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and signature:

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

ADRIAN J. LEE

Name of Person Signing

Signature

Date

Total number of pages including cover sheet, attachments, and document:

16

ATTACHMENT "A"

| WNS File | Full Title | Patent/Application No. | Filed/Issue: |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------|
| 15688.1 | A CDMA Communications Method and System | 5,588,113 | 12/17/1996 |
| 15688.2 | Frequency Error Correction Device of a Spread-Spectrum Communication Receiver | 5,774,484 | 6/30/1998 |
| 15689.3 | Communication System Capable of Performing FDMA Transmission | 5,715,235 | 2/3/1998 |
| 15689.4 | Code Sequence Generator | 5,696,616 | 1/21/1997 |
| 15689.5 | Transmission Power Control Method and Communication System Using the Same | 5,566,165 | 10/15/1998 |
| 15689.6 | Transmission Power Control Method and a Transmission Power Control Apparatus | 5,590,408 | 12/31/1998 |
| 15689.7 | Transmission Power Control Method of A Spread-Spectrum Communication System, and a Spread-Spectrum Communication System employing the Control Method | 5,604,766 | 2/18/1997 |
| 15689.8 | A Transmission Power Control Method and Apparatus for Mobile Communications Using a CDMA System | 5,623,488 | 4/22/1997 |
| 15689.9 | Receiver and Repeater for Spread Spectrum Communications | 5,652,785 | 7/29/1997 |
| 15689.10 | Code Division Multiple Access Transmitter and Receiver | 5,748,623 | 5/5/1998 |
| 15689.11 | Spread Spectrum Communication Receiver | 5,594,754 | 1/14/1997 |
| 15688.12 | Correlation Detector and Communication Apparatus | 5,638,362 | 6/10/1997 |
| 15689.13 | Coherent Detector and a Coherent Detection Method for a Digital Communication Receiver | 5,692,015 | 11/28/1997 |
| 15689.14 | Automatic Gain Control Apparatus, Communication System, and Automatic Gain Control Method | 5,745,631 | 4/28/1998 |
| 15689.16 | CDMA Communications Method and System | 5,734,648 | 3/31/1998 |
| 15689.18 | CDMA Demodulator and Demodulation Method | 5,694,388 | 12/2/1997 |
| 15689.17 | CDMA Multuser Receiver and Method | 5,724,378 | 3/3/1998 |
| 15689.18 | Mobile Satellite Communication System | 5,835,848 | 11/10/1998 |
| 15689.19 | Speech Information Freeze Out Control Method and Equipment in Mobile Satellite Communication System | 5,745,492 | 4/28/1998 |
| 15689.20 | Mobile Communications System and Method With Message Storing Function | 6,084,878 | 5/18/2000 |
| 15689.21 | Apparatus and Method for Establishing Acquisition of Spreading Code in CDMA Transmission System | 5,914,943 | 6/22/1999 |
| 15689.22 | Coherent Tracking Apparatus and Method for CDMA Receiver | 5,888,666 | 4/17/1999 |
| 15689.23 | Mobile Communications System and Communications Network | 5,828,958 | 10/27/1998 |

ATTACHMENT "A"

| WNS File | Full Title | Patent/Application No. | Filed/Issued |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------|
| 15689.24 | Multicellular Transmission Method and Apparatus | 5,940,385 | 2/25/1999 |
| 15689.25 | Variable Rate Transmission Method, Transmitter, and Receiver Using the Same | 5,896,374 | 4/20/1999 |
| 15689.26 | Transmitter Receiver for Mobile Communication System | 5,850,393 | 12/15/1998 |
| 15689.27 | CDMA Mobile Communication Method, System and Mobile Station Apparatus | 5,953,324 | 9/14/1999 |
| 15689.28 | CDMA Demodulating Apparatus | 6,137,788 | 10/24/2000 |
| 15689.29 | Acquisition Method and System of Spreading Code | 5,940,433 | 6/17/1999 |
| 15689.30 | DS/CDMA Transmission Method | 6,097,711 | 8/1/2000 |
| 14589.31 | Transmission System between Base Station and Switching Center of Mobile Communications Using Fixed Length Cell | 06/649,963 | 6/6/1997 |
| 15689.32 | Short Cell Management Unit and Method | 5,909,428 | 6/1/1999 |
| 15689.33 | CDMA Communication Method and Group Spreading Modulator | 6,084,884 | 7/4/2000 |
| 15689.34 | Sliding Correlator Used in CDMA Systems to Establish Initial Synchronization | 5,768,306 | 6/16/1998 |
| 15689.35 | Diversity Receiver and Its Control Method | 6,089,912 | 5/30/2000 |
| 15689.36 | Rake Receiver | 6,026,115 | 2/15/2000 |
| 15689.37 | Micro-frame Multiplex Transmitter | 6,061,354 | 5/9/2000 |
| 15689.38 | Method and Instrument for Measuring Receiving SIR and Transmission Power Controller | 6,034,952 | 3/7/2000 |
| 15689.39 | Signal transmitting Method, Transmitter, Receiver, and Spectrum Code Synchronizing Method for Mobile Communications System | 6,167,037 | 12/28/2000 |
| 15689.40 | ATM Transmission Method Having Silence Compression Controlling Function and System Transmitter and Receiver Using the Method | 6,130,868 | 10/10/2000 |
| 15689.41 | Signal Transmission Method, Mobile Station and Base Station in a CDMA Mobile Communication System | 6,310,868 | 10/30/2001 |
| 15689.42 | Data Transmitting Method, Data Transmitting System and Transmitter and Receiver | 6,108,384 | 10/30/2001 |
| 15689.43 | Power Controller for Mobile Communication System Wherein a Signal to Interference Threshold is Dynamically Moved Based on an Error Rate Measurement | 6,341,224 | 1/22/2002 |
| 15689.44 | Radio Paging System | 6,356,579 | 3/12/2002 |
| 15689.45 | Mobile Communication System, Mobile Station and Diversity Handover Branch Control Method | 09/230,956 | 2/4/1999 |
| 15689.46 | Bandwidth Control Method of Packet Data in Packet Switching Network and Packet Switching System | 09/343,488 | 6/30/1999 |

ATTACHMENT "A"

| WNS File | Full Title | Patent/Application No. | Filed/Issue |
|----------|------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------|
| 15689.47 | Packet Communications Network | 6,310,859 | 10/30/2001 |
| 15689.48 | Channel Estimation Unit, CDMA Receiver and CDMA Transceiver with Channel Estimation Unit | 08/376,908 | 8/17/1999 |
| 15689.49 | Base Station in Mobile Communication System | 08/403,181 | 10/15/1999 |
| 15689.50 | Method and Apparatus for Traffic Control | 09/423,131 | 11/5/1999 |
| 15689.51 | CDMA Receiver and CDMA Transceiver | 09/448,660 | 12/22/1999 |
| 15689.52 | Packet Transmission Method, Packet Transmission System and Packet Data Transmission Medium on Mobile Communications Network System | 09/462,295 | 1/6/2000 |